REMARKS

Claims 1, 2, 4-10, 13-32 and 34-48 are pending in the present application. In the Office Action dated October 21, 2003, the Examiner rejected claims 1, 2, 4-10, 13, 14, 17-23, 26, 27, 29-32, 34, 35 and 37-44 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 3,710,251 to Hagge et al. ("Hagge") in view of U.S. Patent No. 5,474,877 to Suzuki et al. ("Suzuki"). Additionally, claim 15 was rejected as unpatentable under 35 U.S.C. § 103(a) over Hagge in view of Suzuki, and further in view of U.S. Patent No. 6,073,681 to Getchel et al. ("Getchel"). Furthermore, claim 16 was rejected as unpatentable under 35 U.S.C. § 103(a) over Hagge in view of Suzuki, and further in view of U.S. Patent No. 4,432,635 to Mayer ("Mayer"). The Examiner also rejected claims 24 and 36 as being unpatentable under 35 U.S.C. § 103(a) over Hagge in view of Suzuki, and further in view of U.S. Patent No. 5,578,127 to Kimura ("Kimura"). Finally, claims 25, 28 and 45-48 were rejected as unpatentable under 35 U.S.C. § 103(a) over Hagge in view of Suzuki alone. Applicant disagrees with these grounds of rejection and wishes to clarify various distinctions of Applicant's invention over the cited art. Reconsideration of the invention is therefore requested in light of the following amendments and remarks.

The disclosed embodiments of the invention will now be discussed in comparison to the prior art. Of course, the discussion of the disclosed embodiments, and the discussion of the differences between the disclosed embodiments and the prior art subject matter, do not define the scope or interpretation of any of the claims. Instead, such discussed differences are offered merely help the Examiner appreciate important claim distinctions as they are discussed thereafter.

As a preliminary matter, applicant notes that the PTO-1449 from the Information Disclosure Statement filed August 7, 2001, has not been returned. The Examiner is respectfully requested to initial and sign the PTO-1449 and to return it to the undersigned attorney.

Applicant teaches methods for controlling a temperature of a microelectronic substrate during application of a liquid to the substrate. In one embodiment, a method includes disposing the liquid on a first surface of the substrate, rotating the substrate to distribute the liquid over the first surface of the substrate, and directing a gas flow directly against the second surface of the substrate to control a temperature of the first surface of the substrate. Alternately,

the gas flow may include first and second gas flows may be directed to first and second portions of the substrate, respectively, to provide first and second heat transfer rates to the first and second portions. In further embodiments, the gas flow may comprise compressed air, and the liquid may comprise a liquid resist material. The methods taught by Applicant advantageously allow the temperature of the substrate to be controlled during the application of the liquid, by directing gas flows toward the substrate *that directly impinge on a surface of the substrate* that improve the manufacturing process and the quality of the resulting product.

The Examiner cites the Hagge reference. Hagge discloses a microelectronic heat exchanger pedestal for supporting a microelectronic chip during testing. As pointed out specifically in col. 1, lines 12-40, it is important to electrically test microelectronic circuit wafers at both elevated and depressed levels relative to an ambient temperature. Referring now to Figure 1, the disclosed apparatus for testing a wafer will be described further. The apparatus includes a pedestal 10 that includes a top surface 14 and a plurality of tube pins 16 that extend through the top surface 14 that are coupled to a vacuum source that is connected to the tubular line 13. A wafer 11 is retained on the top surface 14 by means of the vacuum that is communicated to the wafer 11 through the tube pins 16. In order to test the wafer 11 under different temperature conditions, a gas may be delivered to the underside of the top surface 14 under prescribed flowrate and temperature conditions in order to provide the desired temperature at the wafer 11, as required by the test. To support the test function, *stationary* test probes 29 and 30 are positioned to probe the wafer 11 under test by suitably positioning an X-Y table structure 28 so that it is properly aligned with predetermined test points on the wafer 11. In order to test the wafer 11, therefore, the wafer 11 must be held stationary relative to the stationary test probes 29 and 30 while the test is conducted. Proper positioning of the wafer 11 is so important, in fact, that a microscope must be used to initially position the wafer before the automatic test sequence begins (col. 4, lines 60-65).

The Suzuki reference, also of record in the present application, is relied upon by the Examiner for teaching a substrate support that is rotatable about a rotation axis. Applicant respectfully but strenuously asserts that the apparatus disclosed in the Hagge reference is not properly combinable with the Suzuki reference. The Examiner is reminded that it is well established that references are not properly combinable if the proposed combination destroys the purpose or function of the invention disclosed in the reference. In the present case, the ability to

probe a wafer surface with *stationary* probes while the wafer is rotated is destroyed. Accordingly, applicant maintains that the asserted combination of the Hagge and Suzuki is improper because the asserted combination lacks the requisite motivation. Further, applicant vigorously asserts that Hagge clearly *teaches away* from any rotating wafer or semiconductor substrate support.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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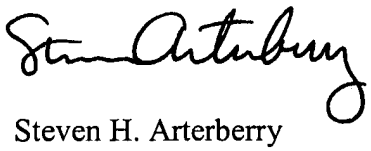

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